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7590

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EXAMINER

FRENEL, VANEL

ART UNIT

PAPER NUMBER

3626

DATE MAILED: 03/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/534,461

Applicant(s)

ABOLFATHI ET AL.

Examiner

Vanel Frenel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12/23/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## **DETAILED ACTION**

### **Notice to Applicant**

1. This communication is in response to the amendment filed December 23, 2002. Claims 1-24 are pending. Claims 1 and 21 have been amended.

### ***Drawings***

2. ***This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.***

### ***Objections***

3. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 14-17 (first instance) have been renumbered as claims 13-16, respectively, as it appears that Applicant inadvertently skipped the number 13 in the original numbering of claims.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joao (6,283,761) in view of Andreiko et al (5,683,243).

(A) As per claim 1, Joao discloses a virtual health-care electronic commerce community, comprising:

a network to communicate information (Col.18, lines 50-65; Col.20, lines 40-50)  
one or more patients coupled to the network (Col.14, lines 13-67 to Col.15, line 17; Col.20, lines 13-67);

a server coupled to the network, the server storing data (Col.14, lines 49-67).  
Joao does not explicitly disclose one or more treating professionals coupled to the network to receive and manipulate the computer model of the patient's teeth; manipulable three-dimensional (3D) computer models of a patient's teeth relating to the community; and each patient including 3D computer models of teeth and performing patient data visualization in response to a user request.

However, these features are known in the art, as evidenced by Andreiko. In particular, Andreiko suggests manipulable three-dimensional (3D) computer models of a patient's teeth relating to the community; and each patient including 3D computer models of teeth and performing patient data visualization in response to a user request (See Andreiko, Figs. 3A, 3B, and 6; Col.39, lines 1-67 to Col.40, line 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features of Andreiko within the system of Joao with the motivation of providing three dimensional imaging of the teeth and jaw of the patient is carried with laser or other scanner to form full three dimensional images of the teeth and jaw of the patient. The images may be formed from the patient's teeth and jaw or form a

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model thereof. Additional data is digitized by taking vertical profiles of the patient's teeth, either by tracing with a computer the three dimensional images generated with other scanners (See Andreiko, Col.5, lines 6-18).

(B) As per claim 2, Joao does not disclose the community wherein the treating professional views one or more of the following patient data visualization over the network : a right buccal view; a left buccal view; a posterior view; an anterior view; a maxillary occlusal view; an overjet view; a left distal molar view; a left distal molar view; a left lingual view; a lingual incisor view; a right lingual view; a right distal molar view; an upper jaw view; and a lower jaw view.

However, this feature is known in the art, as evidenced by Andreiko. In particular, Andreiko teaches a mandibular occlusal view (See Andreiko Col.1, lines 33-65; Col.15, lines 19-55).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Andreiko within Joao's apparatus and the method for providing healthcare information with the motivation of a custom orthodontic appliance which fabricated under the control of a computer directly from data from the teeth and/or jaw of a patient or a model thereof. The appliance so formed, when connected to the teeth of the patient to precise calculated finish positions without the need for the orthodontist to bend archwires over the course of the treatment. As a result, the orthodontist's time is conserved, the treatment of the patient is achieved in a shorter amount of time and the finish positions of the teeth are more nearly ideal (See Andreiko Col.6, lines 20-30).

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(C) As per claim 3, Joao discloses the community wherein the treating professionals include dentists or orthodontists (Col.17, lines 25-30).

(D) As per claim 4, Joao discloses the community further comprising one or more partners coupled to the network, such as insurance companies (Col.17, line 62 to Col.18, line 49).

(E) As per claim 5, Joao discloses the community wherein the partners include a financing partner such as financial account information ( Col.17, line 18 ; Col.18, line 12).

(F) As per claim 6, Joao discloses the community wherein the partners include a supplier (Col.19, lines 54-64).

(G) As per claim 7, Joao discloses the community wherein the partners include a delivery company such as any other third party and/or intermediary who or which acts on behalf of another and/or assists in to providing of healthcare and/or related services (Col.12, lines 41-43; Col.24, line 55-62).

(H) As per claim 8, Joao discloses the community wherein the treating professionals perform office management operations using the server (Col.12, lines 18-67 to Col.13, line 37).

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(I) As per claim 9, Joao discloses the community wherein the office management operations include one or more of the following: patient scheduling, patient accounting, and claim processing (Col.24, lines 21-48).

(J) As per claim 10, Joao discloses the community wherein the patients and the treating professionals access the server using browsers (Col.40, lines 13-67 to Col.41, line 32).

(K) As per claim 11, Joao discloses a computer-implemented method for performing dental-related electronic commerce (Col.17, lines 25-67), comprising:

transmitting teeth data associated a patient from a dental server to a treating professional computer over the Internet upon an authorized request (Col.17, lines 25-67);

transmitting the computer model from the treating professional computer server (Col.14, lines 49-67; Col.15, line 67; Col.20, lines 40-67); and

generating an appliance to treat the patient based on the computer model of the teeth (Col.17, lines 25-61).

Joao does not explicitly disclose displaying a three-dimensional computer model of the teeth at the treating professional computer using a browser; allowing a treating professional to manipulate the three-dimensional computer model of the teeth using the browser. However, this feature is known in the art, as evidenced by Andreiko. In particular, Andreiko teaches displaying a three-dimensional computer model of the teeth at the treating professional computer using a browser; allowing a treating professional to manipulate the three-dimensional computer model of the teeth using the browser (Col.15, lines 22-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Andreiko within the Joao's apparatus and method for providing healthcare information with the motivation of a custom orthodontic appliance which fabricated under the control of a computer directly from data from the teeth and/or jaw of a patient or a model thereof. The appliance so formed, when connected to the teeth of the patient to precise calculated finish positions without the need for the orthodontist to bend archwires over the course of the treatment. As a result, the orthodontist's time is conserved, the treatment of the patient is achieved in a shorter amount of time and the finish positions of the teeth are more nearly ideal (Col.6, lines 20-30).

(L) As per claim 12, Joao discloses the method further comprising providing financing options for the patient using one or more financing partners (Col.16, lines 33-67; Col.17, lines 62-67 to Col.18, line 49).

(M) As per claim 13, Joao discloses the method further comprising offering an on-line shop geared to the patient's dental requirements (Col.5, lines 2-6).

(N) As per claim 14, Joao discloses the method further comprising providing office management utilities for the treating professional (Col.12, lines 18-67 to Col.13, line 37).

(O) As per claim 15, Joao discloses the method wherein the office management utilities include one or more of the following: patient scheduling, patient accounting, and claim processing (Col.12, lines 18-67 to Col.13, line 37).



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(P) As per claim 16, Andreiko discloses the method wherein allowing a treating professional to manipulate the three-dimensional computer model of the teeth using the browser further comprises displaying a plurality of dental views (Col.39, lines 1-67 to Col.40, line 55).

(Q) As per claim 17, Joao fails to disclose the method wherein the dental views include one or more of the following : a right buccal view; a left buccal view; a posterior view; an anterior view; a mandibular occlusal view; a maxillary occlusal view; an overjet view; a left distal molar view; a left distal molar view; a left lingual view; a lingual incisor view; a right lingual view; a right distal molar view; an upper jaw view; and a lower jaw view.

However, this feature is known in the art, as evidenced by Andreiko. In particular, Andreiko teaches a mandibular occlusal view (See Andreiko Col.1, lines 33-65; Col.15, lines 19-55).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Andreiko within Joao's apparatus and the method for providing healthcare information with the motivation of a custom orthodontic appliance which fabricated under the control of a computer directly from data from the teeth and/or jaw of a patient or a model thereof. The appliance so formed, when connected to the teeth of the patient to precise calculated finish positions without the need for the orthodontist to bend archwires over the course of the treatment. As a result, the orthodontist's time is conserved, the treatment of the patient is achieved in a shorter amount of time and the finish positions of the teeth are more nearly ideal (See Andreiko Col.6, lines 20-30).

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(R) As per claim 18, Andreiko discloses the method wherein allowing a treating professional to manipulate the three-dimensional computer model of the teeth using the browser further comprises clicking on a tooth to adjust its position (Col.15, lines 22-67).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 11, and incorporated herein.

(S) As per claim 19, Andreiko discloses the method further comprising displaying x, y and z axis to allow the treating professional to adjust the position of the tooth (Col.49, lines 1-38).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 11, and incorporated herein.

(T) As per claim 20, Andreiko discloses the method further comprising providing supplemental services to the patient, including teeth whitening services (Col.39, lines 35-47).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 11, and incorporated herein.

(U) As per claim 21, Joao discloses a server to support a health-care electronic commerce community with one or more patients and one or more service providers (Col.13, lines 29-67 to Col.14, line 67 to Col.15, lines 1-67), comprising:

a processor adapted to communicate with a network (Col.15, lines 6-67 to Col.16, lines 1-18);

a data storage device coupled to the processor and adapted to store data (Col.19, lines 65-67 to Col.20, line 8) Joao does not explicitly disclose including

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manipulable 3D dental model for each patient and a software to communicate 3 D patient data in response to a client request. However, this feature is known in the art, as evidenced by Andreiko. In particular, Andreiko suggests including manipulable 3D dental model for each patient and a software to communicate 3D patient data in response to a client request (Col.39, lines 1-67 to Col.40, line 55).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Andreiko within the system of Joao with the motivation of a custom orthodontic appliance which fabricated under the control of a computer directly from data from the teeth and/or jaw of a patient or a model thereof. The appliance so formed, when connected to the teeth of the patient to precise calculated finish positions without the need for the orthodontist to bend archwires over the course of the treatment. As a result, the orthodontist's time is conserved, the treatment of the patient is achieved in a shorter amount of time and the finish positions of the teeth are more nearly ideal (See Andreiko Col.6, lines 20-30).

(V) As per claim 22, Joao and Andreiko do not disclose the server further comprising a browser adapted to receive the client request and transmitting the request to the server.

However, Joao clearly teaches utilizing the Internet and /or the World Wide Web to embody his system (See Joao, Col.3, line 53 to Col.4, line 5).

It is well known in the art that browsers are required to receive and transmit data over the Internet and/or the World Wide Web, (Col.3, line 53 to Col.4, line 5) and the Examiner takes Official Notice of browsers for such purposes.

One having ordinary skill in the art at the time of the invention would have found it obvious to incorporate a browser with the system taught collectively by Joao and

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Andreiko with the motivation of providing easy-to-use and readily available access to the Internet and the World Wide Web, as suggested by Joao (Col.3, line 53 to Col.4, line 5 of Joao).

(W) As per claim 23, Andreiko discloses the server wherein the browser further comprises plug-in to visualize patient data in 3 D (Col.39, lines 1-67).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 21, and incorporated herein.

(X) As per claim 24, Andreiko discloses the server wherein the providers service one or more of the following health-care applications: dentistry applications, cosmetic augmentation, hair-care enhancements, liposuction, plastic or reconstructive surgery (Col.40, lines 11-55).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 21, and incorporated herein.

#### Response to Arguments

7. Applicant's arguments filed December 23, 2002 with respect to claims 1 and 21 have been considered but are moot in view of the new ground(s) of rejection.

**(A) On page 4, Applicant argues Joao cannot anticipate claim 1 which has been limited by the present amendment to networks which receive and manipulate a three-dimensional (3D) computer model of one patient's teeth.**

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**In response to Applicant's arguments, it is respectfully submitted that a CAD program generates 3-D images that can be manipulated by a user (See Andreiko, Figs. 3A, 3B and 6; Col.39, lines 1-67 to Col.40, line 55).**

**8. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### **Conclusion**

**9.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanel Frenel whose telephone number is (703)-305 4952 .The examiner can be reached on Monday through Thursday from 6:30 to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Joseph Thomas can be reached on (703)-305 -9643.

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Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number (703) 308-1113.

Any response to this action should be mailed to:

**Commissioner of Patents and Trademarks**

**Washington D.C. 20231**

OR faxed to:


(703) 305-7687      (Official Communications; including  
After Final Communications labeled  
"Box AF")

(703) 746-6065      (Informal / Draft Communications, labeled  
"PROPOSED" or " DRAFT" )

Hand-delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA., 7<sup>th</sup> Floor (Receptionist).

**V.F**

February 26, 2003

  
**DINH X. NGUYEN**  
**PRIMARY EXAMINER**